

Product datasheet for RC213796

Collagen IV (COL4A1) (NM_001845) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Collagen IV (COL4A1) (NM_001845) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Collagen IV
Synonyms:	BSVD; BSVD1; COL4A1s; PADMAL; RATOR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213796 ORF sequence, codon optimized . Due to the complexity of NM_001845, the ORF clone is codon optimized for mammalian Expression. The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGGACCCGAGACTGTCTGTATGGTTGCTCCTGTCTGCCCGCTGCCCTGCTGCTTACGAGGAGCATTCCC
GGGCTGCCGCAAAAGGGGGTGTGCAGGCAGCGCTGTGGTAAATGTGATTGTCACGGCGTCAAGGGCCA
GAAGGGAGAGCGGGTCTGCCGGTCTGCAAGGTGTGATCGGATTTCCCGGAATGCAAGGTCACAGGGC
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GACCACCTGGGGCTAGCGGATACCCTGAAAACCCGGGCTGCCGGGATTTCCCGCCAGGACGGGCCCC
CGGTCCACCCGGAATTCAGGGTGTAAACGTACCAAGGGAGAACGCGGCCACTGGTCCCCGGGCTTG
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GTCATGTTCCCGGATGCTGCTCAAGGGCGAAAGGGGATTCCAGGCATCCCGGGGACGCCCGGTCCGC
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CCCGGACCCAGGGGAGAAGGGACAGATGGGGTGTCTTTTCAGGGTCCGAAAGGGGACAAAGGGGACC
AAGGCGTGAGTGGCCCTCCTGGAGTGCCCGCCAGGCCAGGTACAGGAGAAGGGCGATTTTGCTACTAA
AGGCGAAAAGGGACAAAAGGGTGAACCTGGCTTTCAAGGGATGCCGGGGTTGGAGAGAAGGGGAGCCA
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CCGGTGAACAGGGTACCAGGACTGATTGGGCGCCAGGGACCACAGGGTGAAGGAGAAGCAGGCC
TCCTGGACCTCCAGGAATCGTCATTGGAACAGGACCATTTGGGGGAGAAGGGCGAGAGAGGATACCCCGC
ACCCAGGGCCGCGGGGCAACAGGGCCTAAGGGGTTCCAGGGCTGCCAGGTCAGCCAGGTCCTCCAG



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GTCTGCCGGTGCCAGGCCAGGCCGGAGCTCCTGGCTTCCCTGGTGAAGAGGGCGAAAAAGGCGACAGAGG
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CCAGGTCAGCCAGGTGCAAAGGGGGACAGGGGACTGCCAGGAAGGGACGGGTAGCCGGCGTGGCAGGCC
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ATTCGACCCTTTATTTCAAGGTGTGCTGTCTGCGAAGCTCCAGCTATGGTGTGGCGGTGCACAGCCAAA
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 CTACCATCGAGCGCAGCGAAATGTTTAAGAAGCCTACCCCTAGCACCCCTCAAGGCTGGCGAGCTTCGGAC
 CCACGTGTCCCGATGCCAGGTCTGTATGCGCCGGACC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC213796 representing NM_001845
 Red=Cloning site Green=Tags(s)

MGPRLSVWLLLLPAALLLHEEHSRAAAKGGCAGSGCGKCDCHGVKGQKGERGLPGLQGVIGFPGMQGPEG
 PQGPPGQKGDTEGPELPGTKGTRGPPGASGYPGNPGLPGIPGQDGGPPGPIPCNGTKGERGLGPPGL
 PGFAGNPGPPGLPGMKGDPEILGHVPGMLLKGERGFPGIPGTPGPPGLPGLQGPVGGPFTGPPGPPGF
 PGPPGKGMGLSFQGPKGDKGDQGVSGPPGVPQAQVQEKGDFAKGEKGQKGEPPGFQGMPPGVEKGE
 GKPGPRGKPGKDGKGEKSGPFPGEPPGYPGLIGRQGPQGEKGEAGPPGPPGIVIGTGPLGEKGERGYPG
 TPGPRGEPGPKGFPLPGQPPGLPVPQAGAPGFPGERGEKDRGFPGTSLPGPSGRDGLPGPPGSPG
 PPGQPGYNGIVECQPPGPDQPPGIPGQPGFIDGEKQKGESCLICDIDGYRPPGQPPGPEIGF
 PGQPGAKGDRGLPGRDGVAGVPGQGTPLIGQPGAKGEPGEFYFDLRLKGDKDPGFPQGMPPGRAGS
 PGRDGHPLPGPKSPGSVGLKGERGPPGGVGFPGSRGDTGPPGPPGYGAPIGDKQAGFPGGPSPG
 LPGPKGEPGKIVPLPGPPGAELPGSPGFPQDGRGFPGTGPRGGLPGEKGAAGVQPGIGFPGPPGPKV
 DGLPGDMGPPGTGPRGPNGLPGNPGVQKQKGEPPVGLPGLKGLPGLPGIPGTPGEKGSIGVPGVGEHG
 AIGPPGLQGIRGEPGPPGLPGSVGSPVPGIIPGARGPPGGQPPGLSGPPGIKGEKGFPGPLDMPG
 PKGDKAQGLPGITGQSLPGLPGQQGAPGIPGFPGSKGEMGVMGTPGQPGSPGVPVAPGLPGEKGDHGF
 PGSSGPRGDPGLKGDGDVGLPGKPGSMDKVDMSGMKQKGDQGEKQIIPGIGEKSRGDPGTPGVPKD
 GQAGQPGQPGPKGDPGISGTPGAPGLPGPKGSVGMGLPGTPGEKGVPGIPGQGSPLPGDKGAKGEK
 QAGPPGIGIPGLRGEKGDQGIAGFPGSPGEKGEKSGIIPGMPGSPGLKGSPPSVGYPGSPGLPGEKGD
 GLPGLDIPGVKGEAGLPGTPGTPAGQKGEPPGSDGIPGSAGEKGEPLPGRGFPGFPAKGDKGSKE
 VGFPGLAGSPGIPGSKGEQGMPPGPPGQGPGLPGSPGHATEGPKGDRGPQGPGLPGLPGMPGPPGLP
 IDGVKGDKNPWPAGVPVPGKDPGFQGMPIGGSPITGSKGDMGPPGVPVGFQGPGLPGLQGIKGD
 QGDQGVPAKGLPGPPGPPGYDIKGEPLPGPEGPPGLKGLQGLPGPKGQGVVGLVGIPLGPPGIPGF
 DGAPGQKGMGAPGTGPRGFPGPPGPDGLPGSMGPPGTPSVDHGFLVTRHSQTIDDPQCPGSKTILYHG
 YSLLYVQNERAHGQDLGTAGSCLRKFSTMPFLFCNINNVNCFASRNDYSYWLSTPEPMPMSMAPITGEN
 IRPFISRCVCEAPAMVMAVHSQTIQIPPCPSGWSLWIGYSFVMHTSAGAEGSGQALASPGSCLEEFRS
 APFIECHGRGTCNYYANAYFWLATIERSEMFKKPTSTLKAGELRTHVSRQVCMRRT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001845.1](#), [NM_001845.2](#), [NM_001845.3](#), [NM_001845.4](#), [NM_001845.5](#), [NP_001836.1](#)

RefSeq Size: 6540 bp

RefSeq ORF: 5010 bp

Locus ID: 1282

UniProt ID: [P02462](#)

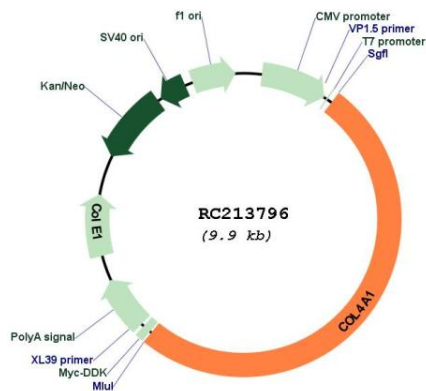
Cytogenetics: 13q34

Protein Pathways: ECM-receptor interaction, Focal adhesion, Pathways in cancer, Small cell lung cancer

MW: 160.6 kDa

Gene Summary: This gene encodes a type IV collagen alpha protein. Type IV collagen proteins are integral components of basement membranes. This gene shares a bidirectional promoter with a paralogous gene on the opposite strand. The protein consists of an amino-terminal 7S domain, a triple-helix forming collagenous domain, and a carboxy-terminal non-collagenous domain. It functions as part of a heterotrimer and interacts with other extracellular matrix components such as perlecan, proteoglycans, and laminins. In addition, proteolytic cleavage of the non-collagenous carboxy-terminal domain results in a biologically active fragment known as arresten, which has anti-angiogenic and tumor suppressor properties. Mutations in this gene cause porencephaly, cerebrovascular disease, and renal and muscular defects. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Dec 2014]

Product images:



Circular map for RC213796

